Comments on
US Department of Energy and National Nuclear Security Administration
Draft Programmatic Environmental Assessment (PEA) for the Recycling of Scrap Metals Originating from Radiological Areas
(DOE/EA–1919) 77 FR 73996

For the purposes of these comments we will use the acronym 'DOE' to refer to the sites and actions proposed by both DOE and NNSA.

Description of Options and Our Support for Continuing, Making Permanent and Expanding the Suspension

STATUS QUO VS SUSPENSION REVERSAL OR WASTE ONLY

Option 1 removes the decade-plus suspension that has been in place on the release of potentially surface contaminated radioactive metal from radiological areas of the Department of Energy and National Nuclear Safety Administration. It would employ DOE Internal Order 458.1 to infuse nuclear weapons-complex–generated radioactive contamination into commercial metal recycling to make everyday household and personal care items. Metal is the best recycled material in the world – a success story that this DOE/NNSA plan could destroy.

Option 2 would not permit commercial recycling but would allow disposal as radioactive or as non-radioactive waste, using the "Authorized Limits" or other methods in DOE Order 458.1. Since some landfills allow scavenging for recycling there is no guarantee the metal would stay out of the recycling stream. Since landfills are not intended to take radioactive waste and do take some hazardous materials, there is the concern that landfill leakage and fires could release radioactivity and mixed radioactive and hazardous materials to the environment and public, now and into the long term future. Incinerators could release radioactivity into the air and concentrate it in the filters which could then be treated as not-radioactive waste.

Option 3 is to maintain the status quo Suspension:

Based on the year 2000 Secretarial Suspension of commercial recycling of metal from radiological control areas, sites have been required to store any metal they might hope to someday sell into commerce. Apparently, the suspension did not stop DOE's use of its release processes [presumably using DOE Orders 5400.5 and 458.1 possibly including setting site-specific "Authorized Limits"] to allow some metal to be disposed as radioactive waste or hazardous or non-radioactive waste. Or is the larger inventory still at DOE sites but not listed in EA 1919? The amount of metal reported in EA 1919 as encumbered is much less than the amount of surface contaminated metal that was in storage or projected to go into storage when the Suspension was put in place.

Options 2 and 3 seem to be essentially the same. Option 2 directs all metal be disposed and Option 3 allows it to be stored under the Suspension or disposed as waste.

Rather than respond to our written and verbal question requesting clarification regarding the distinction between options 2 and 3, DOE/NNSA staff submitted our question into the record as a comment.

If the surface metal suspension is continued – if it is not lifted as proposed in this Programmatic Environmental Assessment (PEA), that metal cannot be sold into commercial recycling. We support continuation of the Suspension to keep the metal out of commercial metal recycling.

Of the 3 options, we support #3, maintaining the Suspension.
We also strongly support making the suspension permanent and expanding it to prevent potentially radioactive metal from being sent to any non-radioactive disposal; that is to require that the metal be treated as **radioactive** waste, not acceptable for non-radioactive disposal. For all the options, we support storage or disposal in a specifically-licensed radioactive disposal facility or in a DOE facility that is intended and engineered for storage or disposal of radioactive waste, materials, property.

If DOE and NNSA treat all metal in radioactive areas as radioactive, they can save time and money that would otherwise be spent analyzing and reclassifying the contaminated metal. We support requiring all metal in radiological areas to be considered radioactive waste, not subject to release from radioactive control.

EXPANSION OF THE SUSPENSION:

As in 2000, when the suspension was put in place, we advocated that all materials, not just metal, be treated this way. We call on DOE NNSA to expand the Suspension (and Moratorium on volumetrically contaminated metal) to cover other materials in addition to metal. Expand it also to keep controls of other materials, including but limited to potentially contaminated concrete, asphalt, chemicals, wood, plastic, equipment, soil, etc.

None of these materials, property, or wastes is welcome outside of dedicated facilities for radioactive materials.

The clear message from the public to DOE and NNSA regarding the amount of nuclear power and weapons fuel chain-generated radioactivity we accept in the metal supply, in consumer goods and in solid and hazardous waste facilities, is the same now as it has been in the various DOE proceedings in 1999 to 2001, in the proposals US Nuclear Regulatory Commission in 1980-81, 1986-1992, 1999, 2003, 2004. 2005 and 2006; the US Environmental Protection Agency in 1996-1998, 2001, 2003; the US Department of Transportation from 1999 to 2005, in the development of reports and so-called standards by the National Council of Radiation Protection and Measurements and the National Academy of Sciences in their reports and in International Commission on Radiological Protection and the United Nations International Atomic Energy Agency and the UN transport agencies. Every time the nuclear establishment has moved to set standards to deregulate and release from control, radioactive waste, materials and property from the nuclear fuel chain, the public has agreed to ZERO additional radioactivity from the nuclear power and weapons fuel chain and ZERO ADDITIONAL EXPOSURE above preexisting and unavoidable background.

A TIMELINE of efforts to release/clear/ exempt radioactive waste, materials, property, emissions and practices from controls is being submitted as **Appendix A** to these comments. This is mainly *to identify the number of times the US public has rejected the notion of radioactive releases,* clearance, BRC (Below Regulatory Concern), exemptions, or other justifications for failing to isolate man-made radioactive waste from nuclear control.

(_Attach TIMELINE)

DOE has been repeatedly asked to expand the bans on release of radioactive metal and potentially radioactive metal from radioactive areas of DOE and NNSA sites to prevent release of ANY contaminated substances-metal, concrete, asphalt, plastic, wood, paper, glass, soil, chemicals, equipment, etc. to recycling and to solid and hazardous waste facilities that are not specifically licensed or controlled for radioactive wastes, materials and property. We repeat that request in this proceeding on EA 1919 which would lift the suspension on surface contaminated metal. Please maintain the suspension and make it permanent. Please manage the potentially contaminated metal as radioactive waste.

Even with a goal of not-releasing any radioactivity, some will get out and is already getting out. Setting standards that are expensive and difficult-to-measure, literally impossible to enforce, designed to be set and enforced by the very entities that benefit from release will inevitably result in involuntary doses to the public and obviously do not help the public have confidence.

PUBLIC DISCOURSE, PUBLIC HEARINGS, INFORMED "CONSENT"

Secretary Richardson indicated the need for broad, open public discussion and involvement in any decision to start letting radioactive metal out into the marketplace, directed a full Environmental Impact Statement and 60 days for comment. DOE is only doing and Environmental Assessment and has not provided a full 60 days.

50 organizations and individuals requested more time to review the proposal and inform others who might be interested or had commented in the past. This was essentially denied when the comment period was extended only because the email address to which comments were to be sent according to the Federal Register announcement of 12/12/12 was found to be broken, non functional, bouncing comments back to commenters. The requests for more time essentially were not granted.

DOE is holding no hearings and failing to answer legitimate questions posed about the proposal during the comment period.

DOE is not seeking broad public input and participation. Instead, it appears to be relying on input from local Site Specific Advisory Boards and similar local groups in the vicinity of the DOE complex sites. In some ways this is a conflict of interest as for example, the SSAB in Portsmouth, Ohio, is being led to believe a metal facility could be built there providing jobs and income IF the Suspension and Moratorium are reversed. It is common knowledge that the local communities that are dependent on DOE for jobs and resources will not be critical of many of DOE's plans. If they are critical, they risk being disbanded as some are dependent on DOE for funding their meetings and facilitation. Certainly the local communities around DOE sites must have a say in the activities of DOE, however, the consequences of releasing radioactive materials and wastes – metal and others—into the commercial recycling streams and into solid and hazardous waste facilities will be borne by the population at large and not mainly the local communities where the radioactive metal and other waste originates.

The concept of informed consent to radiation is important, especially in light of the upcoming federal search for a high level radioactive waste site which is supposed to involve "consent."

What "consent" is there when people a) have no knowledge that radioactive materials are being released from DOE sites and b) have no say in the "authorized limits" or other vehicles by which DOE is releasing the material.

Although some entities within DOE maintain that the metal is "clean," or "uncontaminated" the clearance process outlined in EA 1919 and DOE Order 458.1 is not dedicated to showing that but to allowing DOE-made radioactivity out of DOE control into unregulated destinations including landfills, incinerators, recycling facilities, auctions and others.

RADIATION RISK and RESRAD

A significant change from the public perspective, since the last time this assault on public health, safety and environment was attempted is that we have been provided with updated statistics from the National Academy of Sciences (NAS), a nuclear supporter, that ionizing radiation is actually more powerful at causing cancer and fatal cancer than its previous reports have indicated. In addition, the statistics that were revealed in the most recent NAS report on the Biological Effects of Ionizing Radiation BEIR VII

(Table 12.6 page 281) show that radiation causes 50% more solid cancer and fatal cancer in women than in men at the same doses. Radiation is more harmful than previously thought and 50% more so in females. It is even more so in children with young girls at highest risk.

There is increasing evidence of radiation causing heart disease and other non-cancer harmful health effects.

There continues to be evidence that radiation is more harmful per unit dose at low, chronic doses, which is what DOE is delivering with by letting even small amounts of radioactivity out into the metal supply. Once the gates are open, the flow of radioactive materials and metals will not stop thus an unlimited amount of radioactivity could be released.

EA 1919 is deficient in that it makes no calculation or estimate of the amount of radioactivity that would be released in the 14,000 metric tonnes of metal it would release if the suspension is overturned. Nor is there an estimate of the overall amount that would be released due to the policy of routinely releasing.

DOE has set its own self-determined, legal (not safe) allowable annual exposure level to members of the public in addition to background, medical, radon, (DOE Order 458.1 section 4. b) at 100 millirems per year. If it must be higher, doses can go up to 500 millirems per year (as long they don't average out higher than 100 annually over 5 years). This is what DOE sees as the amount of radiation it can impose on people. This is done via releases to air, water, sewage, soil, the aquatic and terrestrial food-chains and food-webs, direct exposure from radioactive sources, exposure from particulate radioactivity that settles on surfaces and this new addition-deliberately released radioactive materials or property with residual radioactivity.

DOE is assuming that if it TRIES to only release "lots or streams" (EA 1919 p 5 footnote) of contaminated metal each of which is calculated to deliver a millirem or less per year using the RESRAD code and MARSSIM (Multi-Agency Radiation Survey and Site Investigation Manual) procedures that all together we probably won't exceed the 100 to 500 millirems a year they feel entitled to add to our body burden.

There is no evidence provided in EA 1919 and accompanying documents substantiating that claim. Computer codes and models make predictions but have not been verified by real world observation of releases to the public and actual exposures and risks, The RESRAD computer code is critiqued below.

In addition, the risk of a millirem per year is greater than the 1 in a million especially if the object remains in contact for years or for life.

The US Environmental Protection Agency superfund operates on the assumption that the risk of a pollutant or contaminated site is acceptable if it causes no more than 1 in a million people exposed to get cancer…and if that is not possible the highest acceptable risk is 1 in 10,000 exposed people getting cancer. If DOE proceeds with allowing unlimited numbers of releases, each of which can give a millirem a year, some giving a millirem a year for many years or for a person's whole lifetime, the risks would be in the range of 1 in 10,000 and possibly much higher.

The RESRAD Computer Code is to be used to estimate and project doses.

We have concerns with the use of the RESRAD computer code to justify releases of radioactivity. The RESRAD code does not incorporate or factor in the synergistic effects of radioactivity and other environmental stressors such as chemicals into its projected doses. It is common knowledge, but not part of the risk calculations, that health effects are greater than additive for exposures to chemicals and radiation together. In addition, chemicals in a landfill can accelerate migration of the contents of landfills including radioactivity. The RESRAD computer code was designed to project the doses members of the public or workers might receive in the future from abandonment of some set amount of radioactive materials today. Although claims are made that code has been validated, which means proven to give the correct projections when compared to real world exposures, we have been unable to identify validation for the RESRAD code for landfills. The RESRAD Recycle code for recycling radioactive metal into consumer goods was put through a DOE-funded validation exercise (at Studsvik in Sweden) but it was not compared to actual doses rather to other calculations, was not convincing and focused on worker doses, not doses to people in daily contact with items made from radioactive metal. Regarding the RESRAD code used to determine doses from landfills, no proof that its projections were even in the ballpark of real doses could be

found. In addition, projecting leakage of any materials from landfills is highly speculative.

According to landfill groundwater expert, Dr. G Fred Lee[i],

> "There is no reliable way to properly predict when high density polyethylene liners in an MSW [Municipal Solid Waste] landfill or Class C landfill are going to fail. They are going to fail. There is no question they will fail. The issue about that is not if but WHEN and that is unknown. It relates to the fact that there are a whole host of reasons they fail including free radical attack. It can take hundreds of years but that is extrapolating beyond any reasonable approach."

He did not believe RESRAD or any code can reliably predict when any doses would be delivered. In addition, the RESRAD computer code relies on a secret base code. The underlying equations for the various assumptions are not revealed publicly even though the code was developed primarily with U.S. tax dollars and is used to justify release of corporate and government nuclear waste generators from liability for the radioactivity they produce. The claims are often made that the RESRAD code has been benchmarked (compared with other comparable codes), validated (shown to have the correct calculations) and verified (shown to be accurate based on real-life comparisons). There are several RESRAD codes and the one used for landfills has not been validated, to the best of our ability to ascertain. We researched and inquired directly with the RESRAD authors but got no information on validation of the code used for landfill dose[ii] calculations. The RESRAD website [iii]has indicated that metal recycling code RESRAD RECYCLE was validated but we contend it was not a completely independent exercise and question that assertion as there appear to be flaws and invalid comparisons in that validation effort.

EXPANDED PROCESS FOR RELEASE DOES NOT IMPROVE ACCEPTABILITY:

Since DOE's last effort to release radioactive metal into the marketplace and everyday consumer items, DOE along with the US Nuclear Regulatory Commission, Environmental Protection Agency and Department of Defense, agencies with responsibility for ionizing radiation protection from their own or others' sources have collaborated to create new versions of MARSAME, the Multi-Agency Radiation Survey and Assessment of Materials and Equipment Manual. We question and challenge the authority of the agencies collaborating to facilitate releasing nuclear waste into commerce. We have challenged each agency individually as each

attempted to legalize sending nuclear waste out in to the commons, unregulated, uncontrolled for radioactivity and none of them has a adopted a legal clearance level for its agency, however each sent their technical staff to develop a mechanism for release, which DOE is now adopting in its internal orders and using to justify the publically opposed practice of release or clearance of radioactive metal, materials and property. MARSAME, the product of those collaborations, is included in the DOE Internal Orders 458.1 whereas it was not in the previous order 5400.5 in an effort to make the releases more acceptable. But they are not. The elaborate decision trees giving the illusion of great care and review and management oversight, have been devised to justify releasing various amounts of radioactivity into regular trash or commercial recycling.

DOE has added to the confusion by referring to metal with some DOE radioactivity as “uncontaminated.”

The roadmap to release has gotten more complicated than it was in 2000, but that is not necessarily an improvement when the goal and outcome are still to permit man-made radioactivity into everyday commerce, recycling and nonradioactive disposal. If the expertise and expense were to be used to prevent any contamination from being released, it would be a more worthwhile endeavor. However, setting release levels is just as objectionable if it is done in 20 steps as it is in 4 steps if the outcome is radioactive contamination of the metal supply.

Further, in the preferred alternative, the authority to allow releases will move down the chain of command, making it harder to track. The decision would be made closer to or by the managers those whose goal is to release and sell the contaminated metal to meet budget restrictions and save disposal capacity, a set-up for un-objective/ biased release decisions.

DOE’s denial of concern for health effects at low doses and need to proceed with dismantling and site cleanup as economically as possible makes it an unacceptable decision-maker to set “Authorized Limits” or make determinations on releases and release levels or to do ALARA evaluations.

Third party auditing does not provide much assurance of greater protection from release. It has been done at the discretion and expense of each site. It can be expensive and the results are only made public with the permission

of the entity that hired the auditor, so critical audits will be unlikely be made public. It would be up the site officials to improve their own performance or not. Such audits are only done on a small sample of the released material or on the processes for release, so cannot be relied upon for complete quality control and prevention of higher contamination.

Sadly, we have enough risk for cancer, genetic problems, reduced immunity heart disease already and most of the general public chooses, in this democracy, not to be forced to risk additional, unnecessary health risks from man-made ionizing radiation,,, which is currently under radioactive control.

CONTRADICTING EXECUTIVE ORDERS ENCOURAGING POLLUTION PREVENTION AND RECYCLING and INCREASING GREENHOUSE GAS IMPACTS AND CLIMATE CHANGE:

Sending even slightly contaminated metal and other materials into recycling could very well lead to a greater demand for virgin metal and materials. Thus, DOE would be violating rather than supporting Executive Orders 13423 and 13514. DOE would be going counter to the stated goal of reducing waste if it sends contaminated metal into recycling, making it potentially dangerous and publicly undesirable. If the public loses confidence in the safety of the recycling stream, the demand for new metal will increase. This would INCREASE greenhouse gasses from additional mining of virgin materials rather than offset it as projected in EA 1919. DOE also incorrectly claims that the proposed action would result in better air and water quality because of a reduction in mining. If the option increases demand for mining it will reduce air and water quality due to additional mining emissions.

INADEQUACY OF EA 1919

No description is provided of the actual metal to be released.
No description of the radioactivity nor assessment of amount of radioactivity from the 14,000 tonnes or all radioactivity that would be released in the future if the suspension is lifted.
Not all metal will be surveyed

No evidence is provided for the claim in EA 1919 that a millirem release for each lot or stream has been “shown to be protective of the human health and the environment.”
No analysis of potentially continuous doses from multiple sources
No analysis of the effects of synergistic effects
No justification for unnecessarily contributing to the DOE self- permitted dose to each member of the public of 100 millirems per year with doses up to 500 mr/year in “temporary” years (averaging 100 per year over 5 years).
No plan to verify or enforce these levels. In fact the doses to specific individuals are not even calculated.
No public process in adoption of DOE Order 458.1 yet it is being used a regulation or rule to permit release.
DOE Order 458.1 is the “rule” DOE adopted, internally, without notice or public comment, [previously DOE Order 5400.5], that states that DOE is using to justify releasing radioactivity that can expose/give ionizing radiation doses to members of the public. It also sets the procedures DOE and its contractors must follow to release radioactive metal. Since this is the operative release rule, DOE should have made public the adoption of 458.1 inviting public comment and holding hearings beyond local site specific advisory board meetings in communities hoping to gain financially by the releases

DOE does NOT propose to use the 458.1 or MARSAME radioactive release procedures to PREVENT release of radioactive metal and other materials and property, which we could potentially support. DOE plans to use the order to facilitate letting contaminated metal out of controls into unregulated commerce, recycling and regular trash.

AUTHORIZED LIMITS AND CONCENTRATION TABLES—Higher doses and risks than promised…

DOE is setting “Authorized Limits” and MIS-using Regulatory Guide 1.86 contamination levels. The contamination levels in this nearly 40 year old regulatory guide (1974 Atomic Energy Commission Regulatory Guide 1.86) were based on the detection limits of the monitoring instruments of the day. These have become the defacto allowable levels to “clear” radioactive materials/waste/property from radioactive controls and in to commerce today.

The public never authorized DOE to self-determine levels for release of radioactivity on or in metal or any other material or property. Nor was there public input when Reg. Guide 1.86 came to be used for release into the marketplace.

DOE claims it will keep the dose to any of us from each lot or stream of contaminated material it releases to 1 millirem per year. Page 5 of EA 1919 states: "For release of personal property (2), including uncontaminated scrap metal, for recycle, authorized limits are the concentrations of radioactive materials on surfaces that result in a total effective *dose of 1 millirem (mrem), above background, per year (mrem/y),* or less, to a member of the public based on As Low As Reasonably Achievable (ALARA) process evaluations (DOE 2011).(3)
[*emphasis added*]

Footnote (3) clarifies that it is a millirem per year per lot or stream:[1] EA-1919 page 5 footnote 3: "This standard applies to *each lot or stream of scrap cleared from an individual site*."

HOWEVER, the dose from the concentrations in Reg. Guide 1.86 can be much higher than the 1 millirem or millirad per **year** DOE claims each cleared lot or stream can give us.

DOE says via TABLE A-2 that it will use the same contamination levels that Reg. Guide 1.86 lists… DOE also could go up to the ANSI/HPS N13.12 (1999) concentrations shown in the last column of that table, which are even higher.

AEC Reg. Guide 1.86 contamination levels are listed in Table A-1 on page 30 of DOE EA 1919. Footnote (e) indicates that for the allowable concentrations for release listed that

> "The average and maximum dose rates associated with radioactive materials on surfaces resulting from beta-gamma emitters should not exceed *0.2 millirad per* ***hour*** *(mrad/h) and 1.0 mrad/****hour***, respectively, at 1 cm." (*emphasis added*)

DOE's "dose constraint," its purported limit per "lot or stream"[iv] is a millirem per YEAR and the levels in the release table will result in doses up to a millirad per HOUR. (Millirems are the same as millirads for gamma emitters; millirem amounts are much larger for alpha emitters. There are 8760 hours in a year. That could mean 8760 millirads/year when the "limit" is allegedly 1 mr per year.)

Table A-2: Comparison of Authorized Limits for Surface Activity (dpm/100 cm2) on page 31 EA 1919 lists 33 radionuclides including isotopes of plutonium, polonium, cesium, strontium, gold, cobalt, nickel and iodine and the allowable contamination levels for release as if "uncontaminated." The claim is made that these levels will only result in a millirem per year of exposure to a person (using computer codes to make the estimate). However, as discussed elsewhere the Reg. Guide 1.86 doses appear to be thousands of times higher based on Table A-1 on the previous page. DOE is using the Reg. Guide 1.86 levels and compares to the ANSI standard which has even higher allowable concentrations. The ANSI levels must give even higher doses since they are higher—in some cases orders of magnitude higher than the DOE and Reg. Guide 1.86 concentrations. Elsewhere in EA 1919 DOE asserts that it intends to move toward using the ANSI levels, probably because they supposedly can be used for both surface and volumetric releases, and DOE is planning to release volumetrically contaminated metal next.

The ANSI levels given in Table A-2 were developed by a working group comprised of advocates of clearance/release with no representative of the public or critic of the concept. It was done without public notice or opportunity for input. The National Academy of Sciences criticized ANSI levels because its "method for deriving the screening levels is not traceable by independent reviewers." "…the working group used professional judgment to discount or reduce values from scenarios if the group believed the value to be unreasonably conservative…"

The conversion from concentration to dose is a black box.
The ANSI levels are said to be similar to international levels—which were developed with a goal of releasing as much decommissioning waste as possible rather than on any health risk assessment. When DOE does do health risk assessing, it is dismissive and unsubstantiated.

For example, the Authorized Limit is described as "…a quantitative limit on the amount of radioactive material on the surfaces of property that *has been shown to be protective of the human health and the environment,* …" yet provides nothing to support this claim. There is no way to even measure a dose or track doses. What is the basis for this claim that contamination levels HAVE BEEN SHOWN TO PROTECTIVE?

DOE claims that its "Order 458.1 offers protection consistent with national and international recommendations for the clearance of materials originating from controlled areas (NCRP 2002, ANSI/HPS 1999, IAEA 2011, ICRP 1991) and considered to be protective of human health and the environment. As stated in DOE Order 458.1, personal property *can only be cleared from controlled areas if it can be shown that clearance will result in acceptable authorized limits which are less than 1 mrem above background to a member of the public in any one calendar year*."

Once again we ask how is this ***shown****?*

INADEQUATE REPORTING

DOE says it will report releases or clearance the annual site environmental reports ASERS but these come out well after releases are complete and there is no reporting on the destinations. The point of reporting from the public perspective is to know where the radioactive material is going, how much and when with potential for tracking or verification, possibly to avoid exposure.

Notifying local governments and tribes is a good thing but it is not enough when the material will spread beyond the jurisdictions of those entities.

INTERNATIONAL AND RADIATION ESTABLISHMENT RECOMMENDATIONS:

DOE gives the impression that the rest of world is releasing radioactivity so we should too. The agencies advocating clearance and release are nuclear proponents who have ignored public opposition and do not add credibility to the concept. Many of the same clearance/release promoters sit on some or many of the other organizations providing recommendations for clearance

levels. They self-reference to give the impression of international support when in fact it is simply international nuclear industry support for a cheaper way to make the nuclear waste accumulated over the last 70 years appear to be gone or manageable.

Process Knowledge and Institutional Memory

From 2004 to 2007 NIRS conducted various levels of surveys of the 7 DOE sites regarding procedures for releasing radioactive materials, property and wastes from radioactive controls.

The sites were West Valley, Los Alamos, Rocky Flats, Mound, Fernald, Paducah and Oak Ridge. The general sense the locations that were reviewed for this topic, at that time, was that people with the long term history of the sites who would be relied upon for institutional memory had or were retiring and that institutional memory was being lost. There were instances of institutional memory being wrong or incomplete.

For example, at one site, filing cabinets and office furniture were contaminated at their bases due to a flooding of the area which was not supposed to have radioactivity present and was not known to the people releasing these items.

The State of Tennessee Department of Environment and Conservation (TDEC) has a division that oversees DOE at Oak Ridge. The head of TDEC's Department of Energy-Oversight Division (DOEO) expressed grave concerns about reliance on institutional knowledge at such old, enormous sites as Oak Ridge, TN.

DOE's first step in releasing radiological property is to determine if the property has known or potential contamination. This is done relying on institutional memory or knowledge about what might be contaminated and with what types of radioactivity. Although historical knowledge is obviously important, it can be wrong or incomplete. Thus we contend it should never be used to avoid appropriate surveying and monitoring. DOE Order 458.1 (3) (a)

DEFINITION OF PROPERTY VS BYPRODUCT MATERIAL

We support the questions regarding Doe's definition of byproduct material as personal property raised in other comments in this docket.

CONCLUSION:

DOE should cancel the EA process and maintain and expand and make the suspension permanent, while treating the waste as radioactive.
If DOE proceeds, it is imperative that there be public notice, hearings and a full Environmental Impact Statement, at the very least.

Our clear preference is that DOE and NNSA cancel this effort to use EA-1919 to release metal into the marketplace contaminating the metal supply, building materials and personal use items with which people have long term, sometimes continuous contact.

RESPECTFULLY SUBMITTED

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Documents reviewed:
EA 1919, 12/12/12
Fed Reg 12/12/12/ and 12/28/12
Chu Action Memo September 2011
Notice of intent to reverse suspension
Suspension press release and memo 2000
Moratorium 2000
DOE Orders 5400.5 & 458.1

MARSAME
RESRAD Family of Codes
ANSI standard

[i] G Fred Lee statement to Diane D'Arrigo on Monday February 26, 2007; From his website, www.gfredlee.com: "Dr. G Fred Lee has a PhD in environmental engineering from Harvard University. A major area of his specialization there was aquatic chemistry, which focused on the transport, fate, transformation, and control of chemical constituents in aquatic (surface and groundwater) and terrestrial systems, as well as in waste management facilities. For 30 years he held graduate-level faculty positions, teaching and conducting research in departments of civil and environmental engineering at several major US universities… During that time he conducted more than $5 million in research and published approximately 500 professional papers and reports based on his investigations. In 1989, he relinquished his position as Distinguished Professor of Civil and Environmental Engineering to expand his part-time consulting into a full-time endeavor."

[ii]

[iii] http://web.ead.anl.gov/resrad/documents/

[iv] EA 1919 page 5 footnote 3: " This standard applies to each lot or stream of scrap cleared from an individual site."